

REMARKS

Claims 1-12, 15-18 and 25-31 were rejected under 35 U.S.C. 112, first paragraph, as not being enabled. The Examiner has asserted that the claims contain subject matter which is not described in the specification. Applicants respectfully traverse and request reconsideration.

Applicants would point out to the Examiner that the Specification includes one or more examples of implementation of the invention. It is submitted that if the limitations of the independent claims can be matched to the example information/data from the specification, then this would prove to the Examiner that the claim language is supported by the specification. To that end, Applicants reproduce below independent claims 1 and 9 with parenthetical information added after certain claim limitations to prove that the claim language has specification support.

Turning first to claim 1, please see the following reproduction of claim 1 with **bold** **parenthetical** additions of specification support:

1. A radio frequency device having a null or quasi-null intermediate frequency, intended to receive or transmit a radio frequency signal whereof the transmit or receive frequency is part of a frequency range (**1808-1880 MHz**) subdivided into frequency channels, wherein it comprises on the same electronic chip frequency transposition means (**MX**) connected to a local main oscillator (**VCOP**), and in that the main local oscillator is incorporated inside a main phase locked loop (**PLL2**) receiving a first reference frequency (**SRFP**) that is supplied by a voltage-controlled auxiliary oscillator (**VCOA**), itself incorporated into an auxiliary phase locked loop (**PLL1**) receiving a second reference frequency (**SRFA**) that is less than the first reference frequency output from the auxiliary oscillator (**SRFA=50kHz < SRFP=450MHz**), wherein the first reference frequency (**SRFP**) of the main loop (**PLL2**) is a) less

than the output frequency (**SSP**) of the main oscillator (**SRFP=450MHz < SSP=3.6GHz**), b) greater than 10 times the frequency spacing of the frequency channels reduced to the output frequency of the main oscillator (**SRFP=450MHz; 1/10 of that is 45MHz; which is greater than 400kHz channel frequency spacing at 3.6GHz**), and c) removed from a frequency which is a whole integer multiple of the transmit or receive frequency (**SRFP=450MHz which is far from 1808-1880 MHz or multiples thereof**), wherein a spacing between the first reference frequency of the main loop and a whole integer multiple of the transmit or receive frequency is at least the cut-off frequency (**cut off > 1GHz specification paragraph 58**) of the main loop (**1808MHz - 450MHz = 1358MHz > 1GHz**).

Turning next to claim 9, please see the following reproduction of claim 9 with parenthetical additions of specification support:

9. A local oscillator, comprising:
a first phase lock loop (**PLL1**) receiving a first reference signal (**SRFA**) and incorporating a first voltage controlled oscillator (**VCOA**) which generates a second reference signal (**SRFP**); and
a second phase lock loop (**PLL2**) receiving the second reference signal (**SRFP**) and incorporating a second voltage controlled oscillator (**VCOP**) which generates a local oscillator output signal (**SSP**);
wherein the first reference signal (**SRFA**) has a frequency (**SRFA=50kHz**) equal to a frequency spacing (**fs=400kHz**) of channels of an RF signal generated from the local oscillator output signal (**at 3.6GHz**), if a frequency of the local oscillator output signal were reduced to a frequency of the second reference signal (**if 3.6GHz is reduced/scaled to SRFP=450MHz, then the 400kHz channel spacing is reduced scaled to**

50kHz = SRFA * proof below *****, so that the first voltage controlled oscillator operates at a frequency (**450MHz**) for the second reference signal which is in a non-contaminated zone (***** discussion below *****) with respect to operation of the second voltage controlled oscillator (**at 3.6GHz**) and is thus not subject to being perturbed.

The mathematical proof of the scaling operation is as follows:

$$400\text{kHz}/3.6\text{Ghz} = (x)/450\text{MHz};$$

$$3.6\text{GHz (x)} = (400\text{kHz})(450\text{MHz});$$

$$3600(x) = (450)(0.4) \text{ in MHz};$$

$$x = 0.05\text{MHz} = 50\text{kHz} = \text{SRFA}.$$

The scaling ratio taught by the specification is thus 8:1.

With respect to the non-contaminated zone, see the support for part (c) of claim 1 which is applicable to this limitation as well.

Claim 25 has similar limitations to claim 1. Thus, the same analysis for support as presented for claim 1 applies to claim 25.

Withdrawal of the Section 112, first paragraph, rejection of the pending claims is requested.

On page 2 of the final Office Action, the Examiner indicates that it is unclear how the example relates to the confusion concerning the “reduced to” or “scaled to” language. Applicants submit that the examples above, with numbers from the specification applied to the claim language, clearly shows what is meant by the “reduced to” or “scaled to” language discussed by the Applicants.

Claims 1-12, 15-18 and 25-31 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

In claim 1, the Examiner has identified two issues relating to antecedent basis. Minor amendments to claim 1 have been made to correct the antecedent issues.

The Examiner next focuses on the claim 1 limitation for: “wherein the first reference frequency of the main loop is … c) removed from a frequency which is a whole integer multiple of the transmit or receive frequency, wherein a spacing between the first reference frequency of the main loop and a whole integer multiple of the transmit or receive frequency is at least the cut-off frequency of the main loop.” The Examiner indicates that it is unclear how the first reference frequency of the main loop is removed from a frequency that is a whole integer multiple of the transmit or receive frequency. Reference is made to the proof of support provided above with respect to claim 1. The first reference frequency is SRFP. The specification example is that the frequency of SRFP is 450MHz. Conversely, the transmit/receive frequency is, in the example, 1808-1880 MHz. Clearly, 450MHz is set away from or distanced from 1808-1880 MHz (or any multiple thereof).

A similar analysis applies to claim 25.

Turning next to claim 9, the Examiner focuses on the claim 9 limitation for: “if a frequency of the local oscillator output signal were reduced to a frequency of the second reference signal.” The Examiner indicates that it is unclear what is reduced to a frequency of the second reference signal. Reference is made to the proof of support provided above with respect to claim 9. This limitation in essence asks the question what if 3.6GHz is reduced/scaled to the frequency of the SRFP=450MHz. If such would occur, then the 400kHz channel spacing (at 3.6

CUSTOMER NO. 32914

PATENT APPLICATION
Docket No. 61170-19USPX

GHz) would be reduced or scaled to a channel spacing of 50kHz with respect to the frequency of the SRFA. The mathematical proof of this 8:1 scaling relationship is provided above. In other words, the ratio between 3.6GHz and 450MHz should correspond to the ratio between 400kHz channel spacing and the 50KHz value of SFRA (both are 8:1 in the example given by the specification).

Withdrawal of the Section 112, second paragraph, rejection of the pending claims is requested.

Applicants encourage the Examiner to contact the undersigned if there are any questions concerning the traversal of the Section 112, first paragraph, rejection of the claims. Furthermore, the undersigned would be willing to discuss the claim language with the Examiner, as well as consider any clarifying amendments to the claims as proposed by the Examiner which would advance the application towards allowance.

Applicants note that no art rejections have been asserted against the claims. Having addressed the Section 112 issues, Applicants submit that the application is in condition for favorable action and allowance.

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Respectfully submitted,

By _____

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